

What is claimed is:

1. An apparatus for allocating an E1 channel between an  
MSC (mobile switching center) and an IWF (interworking  
function) unit in code division multiple access (CDMA) mobile  
communication system, the apparatus comprising:

a channel buffer for receiving and storing call  
processing data;

a transmission SI RAM (serial interface routing RAM) for  
10 storing E1 channel allocation information, wherein the E1  
channel allocation information includes information on whether  
a transmission super channel including 5 channels will be  
employed or a transmission super channel including 10 channels  
will be employed in transmitting the call processing data to  
15 the IWF unit;

a reception SI RAM for storing the E1 channel allocation  
information, wherein the E1 channel allocation information  
further includes information on whether a reception super  
channel including 5 channels will be employed or a reception  
20 super channel including 10 channels will be employed in  
receiving the call processing data transmitted from the IWF  
unit;

a CPM (communication processor module) for reading out  
the call processing data that are stored in the channel buffer,  
25 storing received call processing data in the channel buffer,  
determining which ones of high speed calls and low speed calls  
are more included in a plurality of call types in process

currently and modifying the E1 channel allocation information stored in each of the transmission SI RAM and the reception SI RAM;

5 a multi channel controlling unit for reading out the E1 channel allocation information stored in each of the transmission SI RAM and the reception SI RAM and allocating a super channel for low speed including 5 channels or a super channel for high speed including 10 channels to the E1 channel; and

10 a serial-parallel converting unit for converting the call processing data from the CPM to serial data, transmitting the serial data to the IWF unit through a corresponding super channel and converting the call processing data from the IWF unit through the corresponding super channel to parallel data and then transmitting the parallel data to the CPM.

15 2. The apparatus as recited in claim 1, wherein the transmission SI RAM includes:

20 a first super channel storage space for low speed for storing the E1 channel allocation information about the transmission super channel including 5 channels; and

a first super channel storage space for high speed for storing the E1 channel allocation information about the transmission super channel including 10 channels.

25

3. The apparatus as recited in claim 1, wherein the reception SI RAM includes:

a second super channel storage space for low speed for storing the E1 channel allocation information about the reception super channel including 5 channels; and

5 a second super channel storage space for high speed for storing the E1 channel allocation information about the reception super channel including 10 channels.

4. A method for allocating an E1 channel between an MSC (mobile switching center) and an IWF (interworking function)

10 unit in code division multiple access (CDMA) mobile communication system, the method comprising the steps of:

a) by a CPM (communication processor module), receiving call type information about a plurality of call types in process currently from the high-level processor;

15 b) by the CPM, determining which are more included in the plurality of call types in process currently, high speed calls or low speed calls based on the call type information;

c) if the high speed calls are more included in the plurality of call types in process currently, by the CPM,

20 designating first/second super channel storage space for high speed of each transmission/reception SI RAM (serial interface routing RAM) as an active zone and first/second super channel storage space for low speed of each transmission/reception SI RAM as a shadow zone; and

25 d) by a multi channel controlling unit, reading out the E1 channel allocation information that is stored in each of the first/second super channel storage space for high speed

and allocating a super channel including 10 channels for high speed to the E1 channel.

5. The method as recited in claim 4, wherein the step c)

5 further includes the steps of:

e) if the low speed calls are more included in the plurality of call types in process currently, by the CPM, designating first/second super channel storage space for low speed of each transmission/reception SI RAM as the active zone and first/second super channel storage space for high speed of each transmission/reception SI RAM as the shadow zone; and

f) by the multi channel controlling unit, reading out the E1 channel allocation information that is stored in each of the first/second super channel storage space for low speed and allocating a super channel including 5 channels for low speed to the E1 channel.